

## REMARKS

The Office action of October 7, 2004 has been received and its contents carefully noted.

The specification has been amended in accordance with the rejections for claims 2-3, and 5-6 under 35 U.S.C. § 112, first paragraph, for lack of enablement without the addition of any new matter. Support for the amendments may be found, for example, in Figs. 1-2, 8-9, 12-13, and 18-19. Figures 1-2, and 12-13 clearly illustrate control blades 111, 311 each having a radius of curvature as opposed to ribs 211, 411 illustrated in Figures 8-9, and 18-19. Applicants strongly contend that these amendments are solely for clarity and do not narrow nor change the scope of the claims to distinguish the prior art.

Claims 1-11 are pending in the application. Claims 7-11 have been added without the addition of any new matter. Support for the new claims may be found, for example, in FIGs. 1-7, 11, 14-17, and on page 9, lines 6-11, 20-26, page 10, lines 7-11, page 11, lines 15-20, and page 12, lines 6-12, 18-22.

Claims 1-6 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over Nobuyuki (U.S. Patent No. 3,995,970). And Claims 1-3 stand rejected under § 102(b) as being unpatentable over Marshall (U.S. Patent No. 16,547), Lievens (U.S. Patent No. 3,924,964), or Takahashi (JP 357186098A). Claims 4-6 also stand rejected under § 102(b) as being unpatentable over McElroy (U.S. Patent No. 2,298,576).

Applicants respectfully traverse these rejections, and request allowance thereof for the following reasons.

### **The Claims are Patentable Over the Cited References**

#### **Claims 1-6 are not anticipated by Nobuyuki**

Claims 1-6 stand rejected under § 102(b) in view of Nobuyuki. Nobuyuki fails to disclose the features recited in these claims such as a frame having an inlet and an outlet, said outlet being provided on a peripheral wall with a plurality of radially projected fluid control elements.

In contrast, Nobuyuki includes support blades 11, 21 and stator blades 13, 23 that comprise an integrated radial structure that fixedly connects the fan shaft itself (see FIGs. 3-6) with the fan casing 27. As disclosed in Nobuyuki, the stator blades 13, 23 and the support blades 11, 21 radially integrate two sides of the fan itself with the frame (fan casing 27) which is significantly different from radially projecting fluid elements from an outlet provided on a wall peripheral to the frame as recited.

Nobuyuki fails to disclose the recited features making the claimed invention patentably distinct and non-obvious from the cited references. It is respectfully submitted that the rejection be withdrawn.

**Claims 1-3 are not anticipated by Marshall, Lievens, or Takahashi**

Claims 1-3 stand rejected under § 102(b) in view of Marshall, Lievens, or Takahashi. Each references fails to disclose the features recited in these claims such as a frame having an inlet and an outlet, said outlet being provided on a peripheral wall with a plurality of radially projected fluid control elements, or where said fluid control elements provided in said frame are adapted to control a flow direction of said fluid flown out of said outlet.

In contrast, Marshall solely discloses a fan blower where a tube (c) is attached to extend a fan case (h) where the tube includes fixed partitions (g) located right after the fan to reduce the strength of the air blast from the fan rather than control the flow direction of the fluid flowing from the outlet as recited (see FIGs. 1, 3-4; col. 2, lines 8-14). Therefore, there exists no peripheral wall to the case (h) or the tube (c) and also the outlet in Marshall contains no projected fluid control elements as recited since the fixed partitions (g) are located directly in front of the fan far from the outlet of the tube (c).

Also, Marshall suggests a contrasting function for the fixed partitions as Marshall states that "...the edges of the partitions and fans being nearly in contact, thereby preventing a rotation of the current of air next the fans and causing a greater strength of blast." (see FIGs. 1, 3-4; col. 2, lines 8-14). Reducing the strength of the fan blast

is significantly different from controlling the flow direction as recited.

Further, Lievens fails to disclose the recited features. Similar to Nobuyuki, Lievens suggests a radial structure for the stator vanes 26 that integrates the fan shroud 12 with the fan shaft itself (stator core 24; see FIG. 3; col. 2, lines 16-23). Specifically, Lievens states that "...a plurality of circumferentially spaced stator vanes 26 which extend radially outwardly from stator core 24 to the shroud 12...vanes 26 are welded at each end whereby the stator core is supported by shroud member 12."

Lievens uses a radial structure that integrates (by welding) the fan with the fan shroud which is significantly different from radially projecting fluid elements from an outlet provided on a wall peripheral to the frame as recited.

Also, Takahashi fails to disclose the recited features. Takahashi solely describes an impeller located within a mouth ring where the mouth ring includes integrated static vanes that first project longitudinally outwardly and then inwardly (see FIGs. 3-4). Therefore, Takahashi projects longitudinally outwardly from an outlet and then inwardly with static vanes which is significantly different from projecting radially from an outlet provided on a wall peripheral to the frame as recited. Takahashi does not disclose a frame including a peripheral wall having an outlet provided with radially projecting fluid elements as recited, but rather omits any frame or radial projection by projecting longitudinally outwardly from a ring, and then projecting inwardly. Projecting outwardly and then inwardly from a ring as clearly illustrated by Takahashi in FIGs. 3-4 does not meet the recited feature of a frame including a peripheral wall providing an outlet with radially projecting fluid elements.

Each of the above-mentioned references fails to disclose the recited features making the claimed invention patentably distinct and non-obvious from the cited references. It is respectfully submitted that the rejection be withdrawn.

#### **Claims 4-6 are not anticipated by McElroy**

Claims 4-6 stand rejected under § 102(b) in view of McElroy. McElroy fails to disclose the features recited in these claims such as a frame having an inlet and an

outlet, said inlet being provided on a peripheral wall with a plurality of radially projected fluid control elements, or where said fluid control elements provided in said frame are adapted to control a flow direction of said fluid flown out of said outlet.

Similar to Lievens and Nobuyuki, McElroy suggests a radial structure for integrally connecting the fan shaft (motor 29) with the fan casing 12 using fins 30 (see FIG. 1; col. 2, lines 46-55, 62-71). Further, McElroy actually teaches that the fins 30 radially extend outwardly from the fan motor shaft 29 and are then secured to the casing 12 using bolts 34 (see FIG. 1; col. 2, lines 62-71). In contrast to fluid control elements radially projecting from an inlet provided on a wall peripheral to the frame as recited, McElroy oppositely teaches that the fluid control elements extend outwardly from the fan motor shaft 29.

Further, McElroy only teaches controlling the flow of intake air in contrast to the recited feature of controlling the flow direction of fluid flowing out of the outlet of the frame. Specifically, McElroy states that "...the fins 30 tend to direct the air in a straight path through the tunnel 10 so it is received by the fan 35 while moving in a straight line." (see col. 2, lines 66-69). Controlling the direction of fluid intake is significantly different from controlling the direction of fluid at the outlet as recited.

McElroy fails to disclose the recited features making the claimed invention patentably distinct and non-obvious from the cited references. It is respectfully submitted that the rejection be withdrawn.

**New Claims 7-11 are not anticipated nor made obvious by the cited references**

For reasons similar to the above observations, new claims 7-11 are patentably distinct and non-obvious from the cited references.

Conclusion

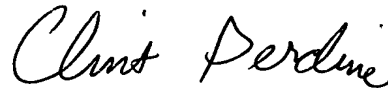
In view of the amendments and remarks submitted above, it is respectfully submitted that all of the remaining claims are allowable and a Notice of Allowance is earnestly solicited.

Application No.: 10/606,739  
Examiner: J. Vrablik  
Art Unit: 3748

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayments to Deposit Account No. 02-0200 for any additional fees required under 37 C.F.R. § 1.16 or 1.17; particularly, extension of time fees.

The Examiner is invited to contact the undersigned at (703) 683-0500 to discuss the application.

Respectfully submitted,



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